Listing of the Claims:

1 – 19. (Canceled)

20. (Currently Amended) A method of treating neonatal asphyxia in a mammal in need thereof, said method comprising: (a) administering to a mammal a gaseous mixture comprising xenon, the xenon having a percent concentration by volume of between about 12.5% and 50%; and (b) subjecting the mammal to hypothermia at temperatures between about 23°C and 37°C.

21. (Previously Presented) A method according to claim 20 wherein the mammal is a human.

22. (Previously Presented) A method according to claim 20 wherein the xenon is administered in combination with a pharmaceutically acceptable carrier, diluent or excipient.

23. (Cancelled)

24. (Currently Amended) A method according to claim 20 ~~23~~ wherein the xenon is administered in the form of a 20 to 70% v/v xenon/air mixture.

25. (Cancelled)
26. (Cancelled)
27. (Cancelled)
28. (Cancelled)

29. (Previously Presented) A method according to claim 20 wherein the xenon is administered simultaneously with hypothermia.

30. (Currently Amended) A method according to claim ~~29~~ 20 wherein the xenon is administered ~~simultaneously~~ separately from hypothermia.

31. (Previously Presented) A method according to claim 20 wherein the temperature of the mammal is maintained at a temperature of from about 32°C to about 36°C.

32. (Previously Presented) A method according to claim 31 wherein the temperature of the mammal is maintained at a temperature of from about 33°C to about 35°C.

33. (Previously Presented) A method according to claim 20 wherein the hypothermia is maintained for a period of at least 6 hours after the hypoxic-ischemic (HI) insult.

34. (Previously Presented) A method according to claim 20 wherein the hypothermia is maintained for a period of from about 6 to about 24 hours after the hypoxic-ischemic (HI) insult.

35. (Previously Presented) A method according to claim 20 wherein the xenon is administered to the mother of the mammal prior to birth.

36. (Previously Presented) A method according to claim 35 wherein the xenon is administered to the mother of the mammal prior to, or during, labour.

37. (Previously Presented) A method according to claim 35 wherein the xenon is administered to the mother of the mammal for up to about 24 hours prior to birth.

38. (Previously Presented) A method according to claim 20 wherein the xenon is administered in a therapeutically effective amount.

39. (Previously Presented) A method according to claim 20 wherein the xenon is administered in a sub-therapeutically effective amount.

40. (Previously Presented) A method according to claim 20 wherein the xenon is administered in a combination with an anesthetic selected from the group consisting of isoflurane, sevoflurane

and desflurane.

41. (Previously Presented) A method of treating neonatal asphyxia in a mammal in need thereof, said method comprising administering a therapeutically effective amount of xenon to the mammal in combination with hypothermia.

42-43. (Cancelled)

44. (Currently Amended) A method of treating neonatal asphyxia in a mammal in need thereof, said method comprising: (a) administering ~~xenon~~ to the mother of the mammal prior to and/or during labour a gaseous mixture comprising xenon, the xenon having a percent concentration by volume of between about 12.5% and 50%; and (b) subjecting the mammal to hypothermia after birth at temperatures between about 23°C and 37°C.

45. (Cancelled)

46.(Previously Presented) The method of claim 20, wherein the xenon is administered sequentially with hypothermia.

47. (Cancelled)

48. (Previously Presented) The method of claim 44, wherein the xenon is administered in a therapeutically effective amount.

49. (Previously Presented) The method according to claim 44, wherein the xenon is administered in a sub-therapeutically effective amount.